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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/621,207	07/15/2003	Rajeev Grover	200300624-1	1087

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FORT COLLINS, CO 80527-2400

EXAMINER
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CHOU, ANDREW Y

ART UNIT	PAPER NUMBER
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2192

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/06/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/621,207	<b>Applicant(s)</b> GROVER ET AL.	
	<b>Examiner</b> Andrew Y. Chou	<b>Art Unit</b> 2192	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2006.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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### **DETAILED ACTION**

1. This office action is in response to the amendment filed on 11/20/2006.
2. Claims 1, 6, 10, and 15 have been amended.
3. Claims 1-17 are pending

### ***Response to Arguments***

4. Applicant's arguments with respect to claims rejection have been considered but are moot in view of the new grounds of rejection to now amended claims. See Kappel et al. US 2002/0029299 A1 made of record below.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-17 are rejected under 35 U.S.C. 102(b) as being anticipated by See Kappel et al. US 2002/0029299 A1 (hereinafter Kappel) – art made of record.

### **Claim 1:**

Kappel discloses an exception handling mechanism comprising:

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an exception handler for recording exception information dependant on types of exceptions and programming tasks that encounter exceptions (see for example FIG. 2, item 50, and related text); and

a recovery agent for taking an action upon an occurrence of an exception, wherein said action is performed outside of a debugging operation (see for example FIG. 3, step 58, and related text);

wherein the action to be taken upon the occurrence of the exception corresponds to a type of exception and a programming task, and includes one or a combination of restarting the programming task, terminating the programming task (see for example FIG. 3, step 58, and related text), resetting a system running the programming task, and disregarding the exception (see for example FIG. 3, step 59, and related text).

**Claim 2:**

Kappel further discloses the mechanism of claim 1 wherein the recorded exception information associated with an exception is associated with a signature for identifying the recorded exception information with its associated exception (see for example page 3, [0029]).

**Claim 3:**

Kappel further discloses the mechanism of claim 2 wherein the signature includes a version of a program running the programming task (see for example page 3, [0029]).

**Claim 4:**

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Kappel further discloses the mechanism of claim 1 wherein a plurality of sets of exception information for a plurality of exceptions is maintained in the system running the programming task; each set of exception information being associated with a signature for identifying that set of exception information (see for example 3, [0030]).

**Claim 5:**

Kappel further discloses the mechanism of claim 1 wherein the recorded exception information associated with an exception is associated with a signature for identifying the format of the exception information (see for example page 3, [0029]-[0030]).

**Claim 6:**

Kappel further discloses the mechanism of claim 1 wherein the recorded exception information includes data related to the program stack, including data to reconstruct the stack at time of exception (see for example page 3, [0027], "method stack").

**Claim 7:**

Kappel further discloses the mechanism of claim 1 further comprising an analysis tool communicating via an interface with the system running the programming task, for identifying causes of the exception (see for example FIG. 2, item 50, "Exception handling system", item 24, "Local interface", and related text)

**Claim 8:**

Kappel further discloses the mechanism of claim 7 wherein the analysis tool uses a version to match the object code of a program running the programming task to

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the source code of the program (see for example column FIG. 3, step 52, and related text))

**Claim 9:**

Kappel further discloses the mechanism of claim 1 wherein the exception handler and the recovery agent run on a first system embedded in a second system (see for example FIG. 1, and related text)

**Claim 10:**

Kappel discloses a processing system comprising:

- a first system (see for example FIG. 2, item 22, and related text);

- a second system embedded in the first system (see for example Fig. 2, item 50, and related text);

- an exception handler running in the second system for recording exception information upon an occurrence of an exception in the second system (see for example FIG. 2, item 50, and related text); and

- a recovery agent running on the second system, for taking an action upon the occurrence of the exception based on the recorded exception information (see for example FIG. 2, item 50, and related text);

- wherein the action corresponds to a type of exception and a programming task (see for example FIG. 3, and related text).

**Claim 11:**

Kappel further discloses the processing system of claim 10 further comprising an analysis tool for receiving, via an interface (see for example FIG. 2, item 24, and related text), the recorded exception information from the second system and for

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identifying the cause of the exception (see for example FIG. 3, step 52, and related text).

**Claim 12:**

Kappel further discloses the processing system of claim 10 wherein the second system includes non-volatile memory for storing exception information (see for example FIG. 2, item 22, and related text).

**Claim 13:**

Kappel further discloses the processing system of claim 12 wherein the exception information stored in the non-volatile memory is compressed (see for example FIG. 2, item 22, and related text).

**Claim 14:**

Kappel further discloses the processing system of claim 12 wherein the exception information stored in non-volatile memory includes a plurality of sets of exception information, each set being associated with an exception and a signature (see for example FIG. 4, and related text).

**Claim 15:**

Kappel discloses a computing system comprising:

- an exception handler for recording exception information on non-volatile memory upon an occurrence of an exception (see for example FIG. 2, item 50, and related text);

- a recovery agent for taking an action upon the occurrence of the exception based on the recorded exception information; and an analysis tool for identifying the cause of the exception (see for example FIG. 3, step 58, and related text);

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wherein the analysis tool receives the exception information from the non-volatile memory via an interface interfacing a first system and a second system running the exception handler and the recovery agent (see for example FIG. 3, step 59, and related text).

**Claim 16:**

Kappel further discloses the computing system of claim 15 wherein the second system (see for example FIG. 1, item 11a, and related text) is embedded in a third system (see for example FIG. 1, item 11c, and related text).

**Claim 17:**

Kappel further discloses the computing system of claim 15 wherein the recorded exception information includes data related to a program stack (see for example FIG. 4, and related text)

***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory

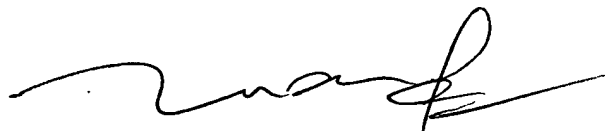


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action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry of a general nature of relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is (571) 272 2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).



TUAN DAM  
SUPERVISORY PATENT EXAMINER

AYC